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EXAMINER	
GONZALES, APRIL GUZMAN	

ART UNIT	PAPER NUMBER
2618	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing.US@motorola.com

Office Action Summary	Application No.	Applicant(s)	
	10/695,513	LOVE ET AL.	
	Examiner	Art Unit	
	APRIL G. GONZALES	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 January 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-9,11,12,14-21,23-34,36-43,45-48,50 and 55-63* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *11,12,14-21,23-28,46-48 and 50* is/are allowed.

6)☒ Claim(s) *1,3-9,29-34,36,38,39,41,42,45,55,56 and 60-62* is/are rejected.

7)☒ Claim(s) *37,40,43,57-59 and 63* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *04/01/2004, 08/02/2004, 03/05/2007, 02/27/2008, 03/14/2008, 11/18/2008*

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

The Examiner acknowledges the receipt of the Applicant's amendment filed on 01/04/2010. Claims 1, 9, 29, 41-43, 46 and 50 has been amended. Claims 55-63 have been added. And claims 2, 10, 13, 22, 35, 44, 49, and 51-54 have been canceled. **Claims 1, 3-9, 11-12, 14-21, 23-34, 36-43, 45-48, 50, 55-63** are therefore currently pending in the present application.

Claim Objections

Claims 23 and 24 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claims 23 and 24, in the present application, depend upon claim 22 which has been canceled.

Response to Arguments

Claims 11-12, 14-21, and 23-28 were previously allowed. These claims are still in condition for allowance, therefore these claims remain allowed.

Applicant's amendments to claims 46-48 and 50 have overcome the previous rejection therefore the rejection has been withdrawn. Therefore, claims 46-48 and 50 are now in condition for allowance and therefore are allowed.

Claims 37, 40, 43, 57-59, and 63 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant argues neither Luschi, Kabada, nor Hwang teaches the features of claim 1 of transmitting and uplink channel scheduling assignment to a selected MS, wherein the uplink channel scheduling assignment includes a maximum traffic channel to control channel power ratio that the MS is allowed to use in a subsequent transmission. Examiner respectfully disagrees because Kabada teaches data is transmitted on the forward link over a time division multiplexed carrier at a fixed data transmit powers but at variable data rates. Measured signal to interference ratio SIR at the receiver is used to determine a data rate which can be supported by the receiver. The determined data rate corresponds to a maximum data rate at which a minimum level of quality of service can be achieved at the wireless unit. Higher measured SIR translates into higher data rates, wherein higher data rates involve higher order modulation and weaker coding that lower data rates (column 1 lines 54-65).

Applicant also argues that neither Luschi, Kabada nor Hwang teaches wherein the MS is able to select a modulation and coding scheme to use with respect to an uplink transmission such that the uplink transmission can achieve a desired quality of service Qos. Examiner respectfully disagrees because Luschi teaches scheduling of the different users on the downlink shared channel is performed on the basis of the channel conditions and the UE negotiated Quality of Service. The actual transmission of one downlink shared channel frame is preceded by downlink signaling of: UE identification, modulation and coding scheme, and H-ARQ parameters on the corresponding UE control channel ([0046]).

Applicant also argues that neither Kabada nor Gopalakrishnan teaches the feature of claim 41 of storing, by the BS, traffic data from the mobile station in a traffic data buffer and when an uplink signal quality metric determined at the BS compares unfavorably with a threshold, flushing the traffic data buffer. Examiner respectfully disagrees because Kabada teaches flushing out the buffer of the base station that was unsuccessful in decoding the previous transmission (column 12 lines 1-13). Kabada also teaches base status 172 and 174 assign the wireless unit EPF (rate, duration and size) independently. BS1 schedules the wireless unit 170 at t1 and informs the wireless unit 170 by transmitting a schedule grant and BS2 schedules the wireless unit 170 at time t2 and informs the wireless unit with a schedule grant (column 12 lines 14-25). BS1 is successful in decoding the wireless unit's data burst and sends ACK. BS2 is unsuccessful in decoding the wireless unit's data burst and sends a NACK. The wireless unit 170 acts on the basis of the ACK from BS1. The next data transmission of the wireless unit can be scheduled by either BS1 or BS2. The wireless unit 170 sends the R-EPFICH and R-HCCH to flush out BS2's buffer during this transmission (column 12 lines 32-41).

Finally Applicant argues that neither Luschi nor Kabada, individually or in combination, teaches the features of claim 45 of storing, by the BS, traffic data from an MS in a traffic data buffer, starting, by the BS, a timer upon transmitting control data to the MS, and flushing the traffic data buffer when the timer expires prior to receiving control data from the MS. Examiner respectfully disagrees because Kabada teaches base status 172 and 174 assign the wireless unit EPF (rate, duration and size) independently. BS1 schedules the wireless unit 170 at t1 and informs the wireless unit 170 by transmitting a schedule grant and BS2 schedules the wireless unit 170 at time t2 and informs the wireless unit with a schedule grant (column 12 lines 14-25).

BS1 is successful in decoding the wireless unit's data burst and sends ACK. BS2 is unsuccessful in decoding the wireless unit's data burst and sends a NACK. The wireless unit 170 acts on the basis of the ACK from BS1. The next data transmission of the wireless unit can be scheduled by either BS1 or BS2. The wireless unit 170 sends the R-EPFICH and R-HCCH to flush out BS2's buffer during this transmission (column 12 lines 32-41).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 60-62 are rejected under 35 U.S.C. 102(e) as being anticipated by Luschi et al. (US PG PUB 2003/0045288 A12).

Consider **claim 60**, and **claim 62**, Luschi et al. teaches transmitting scheduling information by the mobile station, wherein the scheduling information comprises at least one of a queue status and a power status of the mobile station ([0015]-[0016], [0021]-[0022], [0042], [0047], and [0056]-[0057]);

receiving, by the mobile station from a base station, an uplink channel scheduling assignment, wherein the uplink channel scheduling assignment comprises a maximum power margin target ([0027], [0045]-[0046], and [0054]-[0055]);

selecting, by the mobile station and based on the maximum power margin target, a modulation and coding scheme for an uplink transmission ([0046]); and

transmitting, by the mobile station, an indication of the selected modulation and coding scheme ([0046]).

Consider **claim 61, as applied to claim 60**, Luschi et al. further teach wherein selecting comprises selecting, by the mobile station, transport format and resource-related information (TFRI) based on the received interference information ([0046]-[0047], [0049]-[0050], [0062], and [0066]) and wherein transmitting comprises transmitting an indication of the selected TFRI ([0047]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3-9, 29-34, 36, 38-39, 55-56, and 60-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Luschi et al. (U.S. Patent Application Publication # 2003/0045288 A1)** in view of **Kadaba et al. (U.S. Patent # 7,158,504)** and further in view of **Hwang et al. (U.S. Patent # 7,047,473)**.

Consider **claim 1**, Luschi et al. a method for scheduling mobile station uplink transmissions by a base station (Abstract, Figure 1, [0014], and [0026]) comprising steps of:

receiving scheduling information from a mobile station, wherein the scheduling information comprises at least one of a queue status and a power status of the at least one mobile station ([0015]-[0016], [0021]-[0022], [0042], [0047], and [0056]-[0057]);

determining an uplink channel scheduling assignment for the selected mobile station using at least one of the scheduling information and a link quality corresponding to the selected mobile station ([0027], [0045]-[0046], and [0054]-[0055]).

However, Luschi et al. fail to teach a base station interference metric and transmitting the uplink channel scheduling assignment to the mobile station, wherein the uplink channel

scheduling assignment comprises a maximum power ratio that the mobile station is allowed to use in subsequent reverse link transmission.

In the related art, Kadaba et al. teach a base station interference metric and transmitting the uplink channel scheduling assignment to the mobile station, wherein the uplink channel scheduling assignment comprises a maximum power ratio that the mobile station is allowed to use in subsequent reverse link transmission (column 1 lines 54-65, column 3 lines 22-30, column 7 lines 8-35, and column 7 lines 36-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Kadaba et al. into the teachings of Luschi et al. for the purpose of providing fast scheduling that can deliver significant gains via higher data rates/shorter frames and hence better aggregate throughput even after considering the higher overheads.

Luschi et al. as modified by Kadaba et al. fail to teach transmitting the uplink channel scheduling assignment to the selected mobile station, wherein the uplink channel scheduling assignment comprises a maximum power ratio that the mobile station is allowed to use in subsequent reverse link transmission.

In the related art, Hwang teach transmitting the uplink channel scheduling assignment to the selected mobile station, wherein the uplink channel scheduling assignment comprises a maximum power ratio that the mobile station is allowed to use in subsequent reverse link transmission (column 8 lines 53-67, column 9 lines 1-5, and column 9 lines 50-58).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Hwang et al. into the teachings of Kadaba et

al. as modified by Luschi et al. for the purpose of providing a method for controlling data transmission in a radio communication system using response signals which include control information that reflects received signal quality as well as response signals indicating whether the data transmission was successfully accomplished.

Consider **claim 3, as applied to claim 1 above**, Luschi et al. as modified by Kadaba et al. and further modified by Hwang et al. further teach wherein the power status corresponds to a power level of a Dedicated Physical Control Channel (DPCCH) (Luschi et al. – [0062]).

Consider **claim 4, as applied to claim 1 above**, Luschi et al. as modified by Kadaba et al. and further modified by Hwang et al. further teach wherein the power status is based on a difference between a Dedicated Physical Control Channel (DPCCH) power level and a maximum power level supported by the mobile station (Luschi et al. – [0015]-[0016]).

Consider **claim 5, as applied to claim 1 above**, Luschi et al. as modified by Kadaba et al. and further modified by Hwang et al. further teach wherein the queue status corresponds to a size of a data queue (Kadaba et al. – column 4 lines 56-67, and column 5 lines 1-17).

Consider **claim 6, as applied to claim 5 above**, Luschi et al. as modified by Kadaba et al. further teach wherein the queue status further indicates a size of a layer 3 signaling queue (Kadaba et al. – column 4 lines 56-67, and column 5 lines 1-17).

Consider **claim 7, as applied to claim 5 above**, Luschi et al. as modified by Kadaba et al. and further modified by Hwang et al. further teach wherein the queue status further indicates that a layer 3 signaling queue is non-empty (Kadaba et al. – column 4 lines 56-67, column 5 lines 1-17, column 9 lines 61-67, and column 10 lines 1-4).

Consider **claim 8, as applied to claim 1 above**, Luschi et al. as modified by Kadaba et al. and further modified by Hwang et al. further teach further comprising conveying base station interference information to the mobile station via a forward link control channel (Kadaba et al. – column 1 lines 54-65, column 3 lines 22-30, column 7 lines 8-35, and column 7 lines 36-65).

Consider **claim 9, as applied to claim 1 above**, Luschi et al. as modified by Kadaba et al. and further modified by Hwang et al. further teach wherein the link quality is one or more of a link quality of an uplink channel from the mobile station and a link quality of a download channel from the base station to the mobile station (Luschi et al. – [0045]-[0047], and Kadaba et al. – column 4 lines 46-55, and column 5 lines 28-52).

Consider **claim 29**, Luschi et al. a method for transmitting data by a mobile station (Abstract, Figure 1, [0014], and [0026]) comprising steps of:

selecting, by the mobile station, a modulation and coding scheme ([0046]);

transmitting data in a first reverse link channel ([0047]).

However, Luschi et al. fail to teach receiving at the mobile station, interference information associated with, and conveyed to the mobile station by, a base station; and transmitting an indication of the selected modulation and coding scheme in a second reverse link channel, wherein the selected modulation and coding scheme can be used to demodulate and decode the transmitted data.

In the related art, Kadaba et al. teach receiving at the mobile station, interference information associated with, and conveyed to the mobile station by, a base station; and transmitting an indication of the selected modulation and coding scheme in a second reverse link channel, wherein the selected modulation and coding scheme can be used to demodulate and

decode the transmitted data (column 4 lines 46-55, column 5 lines 28-67, and column 6 lines 1-15).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Kadaba et al. into the teachings of Luschi et al. for the purpose of providing fast scheduling that can deliver significant gains via higher data rates/shorter frames and hence better aggregate throughput even after considering the higher overheads.

Luschi et al. as modified by Kadaba et al. fail to teach receiving at the mobile station, interference information associated with, and conveyed to the mobile station by, a base station.

In the related art, Hwang teach receiving at the mobile station, interference information associated with, and conveyed to the mobile station by, a base station (column 8 lines 53-67, column 9 lines 1-5, and column 9 lines 50-58).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Hwang et al. into the teachings of Kadaba et al. as modified by Luschi et al. for the purpose of providing a method for controlling data transmission in a radio communication system using response signals which include control information that reflects received signal quality as well as response signals indicating whether the data transmission was successfully accomplished.

Consider **claim 30, as applied to claim 29 above**, Luschi et al. as modified by Kadaba et al. and further modified by Hwang et al. further teach wherein the transport format and resource-related information (TFRI) is transmitted via a second reverse link control channel (Kadaba et al. - column 4 lines 46-55, column 5 lines 28-67, and column 6 lines 1-15).

Consider **claim 31, as applied to claim 29 above**, Luschi et al. as modified by Kadaba et al. and further modified by Hwang et al. further teach wherein receiving comprises receiving a scheduling assignment that comprises the interference information associated with a base station (Kadaba et al. - column 1 lines 54-65, column 3 lines 22-30, column 4 lines 36-55, column 5 lines 28-67, column 6 lines 1-15, column 7 lines 8-35, and column 7 lines 36-65).

Consider claim 32, as applied to claim 31 above, Luschi et al. as modified by Kadaba et al. and further modified by Hwang et al. further teach wherein receiving a scheduling assignment comprises receiving a plurality of scheduling assignments from a plurality of base stations, wherein each scheduling assignment of the plurality of scheduling assignments is associated with interference information, and wherein the method further comprises choosing a scheduling assignment of the plurality of scheduling assignments based on the associated interference information (Kadaba et al. – column 7 lines 8-67).

Consider **claim 33, as applied to claim 32 above**, Luschi et al. as modified by Kadaba et al. and further modified by Hwang et al. further teach wherein the interference information associated with each scheduling assignment comprises transport format and resource-related information (TFRI) (Kadaba et al. – column 7 lines 8-67).

Consider **claim 34, as applied to claim 32 above**, Luschi et al. as modified by Kadaba et al. and further modified by Hwang et al. further teach comprising determining the corresponding transport format and resource-related information (TFRI) transmitted in the second reverse link channel based on the TFRI of only one base station of the plurality of base stations (Kadaba et al. – column 7 lines 8-67).

Consider **claim 36, as applied to claim 29 above**, Luschi et al. as modified by Kadaba et al. and further modified by Hwang et al. further teach wherein receiving comprises receiving interference information from a plurality of base stations and wherein determining comprises determining the corresponding transport format and resource-related information (TFRI) transmitted in the second reverse link channel based on interference information of only one base station of the plurality of base stations (Kadaba et al. - column 1 lines 54-65, column 3 lines 22-30, column 4 lines 36-55, column 5 lines 28-67, column 6 lines 1-15, column 7 lines 8-35, and column 7 lines 36-65).

Consider **claim 38, as applied to claim 29 above**, Luschi et al. as modified by Kadaba et al. and further modified by Hwang et al. further teach wherein the first reverse link channel and the second reverse link channel are time multiplexed on a same physical control channel such that, in a given transmission interval, either a first reverse link channel ten (10) millisecond (ms) frame format is used or a second reverse link channel two (2) millisecond (ms) frame format is used (Kadaba et al. – column 5 lines 28-67, and column 6 lines 1-28).

Consider **claim 39, as applied to claim 38 above**, Luschi et al. as modified by Kadaba et al. and further modified by Hwang et al. further teach wherein when there is not a scheduled transmission interval then the first reverse link channel ten (10) millisecond (ms) frame format is used and when there is a scheduled transmission interval then the second reverse link channel two (2) millisecond (ms) frame format is used (Kadaba et al. – column 5 lines 28-67, column 6 lines 1-28, column 7 lines 8-61, and column 12 lines 14-42).

Consider **claim 55, as applied to claim 1**, Luschi et al. as modified by Kadaba et al. and further modified by Hwang et al. further teach receiving from the mobile station, an indication of

a selection of a modulation and coding scheme that is based on the transmitted a maximum traffic channel to control channel power ratio that is for an uplink transmission (Luschi - ([0046])).

Consider **claim 56, as applied to claim 55**, Luschi et al. as modified by Kadaba et al. and further modified by Hwang et al. further teach wherein receiving an indication of a selection of a modulating and coding scheme comprises receiving an indication of a selection of transport format and resource-related information (TFRI) that is based on the maximum traffic channel to control channel power ratio and that is for an uplink transmission (Kabada - column 4 lines 46-55, column 5 lines 28-67, and column 6 lines 1-15).

Claims 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kadaba et al. (U.S. Patent # 7,158,504)** in view of **Gopalakrishnan et al. (U.S. Patent # 6,836,666)**.

Consider **claim 41**, Kadaba et al. a method for controlling communications with a mobile station by a base station (Abstract, and column 3 lines 8-30) comprising steps of:

storing, by the base station, traffic data from the mobile station in a traffic data buffer (column 4 lines 56-67, and column 5 lines 1-17);

determining a reverse link signal quality metric at the base station (column 5 lines 18-51); and

flushing the traffic data buffer (column 12 lines 14-67, and column 13 lines 1-7).

However, Kadaba et al. fail to teach comparing the reverse link signal quality metric to a threshold; and the reverse link signal quality metric compares unfavorably with the threshold.

In the related art, Gopalakrishnan et al. teach comparing the reverse link signal quality metric to a threshold; and the reverse link signal quality metric compares unfavorably with the threshold (column 4 lines 43-67, column 5 lines 1-29, and column 6 lines 24-43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Gopalakrishnan et al. into the teachings of Kadaba et al. for the purpose of providing a balance between network throughput and user level QoS via a combination of fast rate adaptation and centralized scheduling at the BS in addition to enabling fast scheduling and enables the use of advanced techniques such as H-ARQ and various flavors of incremental redundancy and are aimed at improving network and user performance.

Consider **claim 42, as applied to claim 41 above**, Kadaba et al. as modified by Gopalakrishnan et al. further teach wherein the reverse link quality metric comprises a reverse link power control metric and wherein comparing comprises comparing the reverse link power control metric to an inner loop power control setpoint (Gopalakrishnan et al. - column 4 lines 43-67, column 5 lines 1-29, column 6 lines 24-43, column 7 lines 42-67, column 8 lines 1-23, and column 9 lines 12-65).

Claims 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Luschi et al. (U.S. Patent Application Publication # 2003/0045288 A1)** in view of **Kadaba et al. (U.S. Patent # 7,158,504)**.

Consider **claim 45**, Luschi et al. a method for controlling communications with a mobile station by a base station (Abstract, Figure 1, [0014], and [0026]) comprising steps of:

storing, by the base station, traffic data from the mobile station in a traffic data buffer ([0047], and [0056]).

However, Luschi et al. fail to teach transmitting, by the base station, first control data to the mobile station on a downlink control channel; upon transmitting the first control data, starting, by the base station, a timer; and when a predetermined period of time expires prior to receiving second control data from the mobile station on an uplink control channel, flushing the traffic data buffer.

In the related art, Kadaba et al. teach transmitting, by the base station, first control data to the mobile station on a downlink control channel (column 7 lines 8-61);

upon transmitting the first control data, starting, by the base station, a timer; and when a predetermined period of time expires prior to receiving second control data from the mobile station on an uplink control channel, flushing the traffic data buffer (column 10 lines 27-67, column 11 lines 1-13, column 12 lines 14-67, and column 13 lines 1-7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Kadaba et al. into the teachings of Luschi et al. for the purpose of providing fast scheduling that can deliver significant gains via higher data rates/shorter frames and hence better aggregate throughput even after considering the higher overheads.

Allowable Subject Matter

Claims 37, 40, 43, 57-59, and 63 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 11-12, 14-21, 23-28, 46-48, 50 are allowed.

Consider **claim 11**, the best prior art of record found during the examination of the present application, Kadaba et al. (U.S. Patent # 7,158,504), fail to specifically teach, suggest, or disclose a method for scheduling a mobile station transmission comprising: scheduling, by a base station of a plurality of base stations, a mobile station of a plurality of mobile stations for a transmission interval based on scheduling information received from each mobile station of the plurality of mobile stations and further based on a link quality metric; conveying base station interference information to the selected mobile station via a forward link control channel; receiving, by the base station from the scheduled mobile station, a first transmission of data, which transmission of data is conveyed by the mobile station during the transmission interval and comprises transport format and resource-related information (TFRI); *decoding the first transmission of the data; when the first transmission of the data is not successfully decoded, receiving, by the base station, communications from the scheduled mobile station corresponding to at least one retransmission of the data; combining, by the base station, each of the at least one retransmission of the data with the previously received data to produce combined data until the first to occur of a successful decoding of the combined data or a flushing of a Hybrid Automatic Repeat Request (H-ARQ) buffer; when one of the first transmission of data and the combined data is successfully decoded, conveying an acknowledgment to the mobile station*; and in

response to conveying the acknowledgment, flushing the H-ARQ buffer. Therefore claim 11 is considered novel and non-obvious over the prior art and therefore is allowed.

Claims 12, 14-21, 23-28 depend on allowable claim 11, therefore these claims are also considered novel and non-obvious over the prior art and are therefore allowed.

Consider **claim 46**, the best prior art of record found during the examination of the present application, Kadaba et al. (U.S. Patent # 7,158,504), fail to specifically teach, suggest, or disclose a method for controlling communications with a mobile station by a base station comprising steps of: determining, by the base station, a link quality metric at the base station; comparing, by the base station, the link quality metric to a threshold; and when the link quality metric compares unfavorably with the threshold, deallocating, by the base station, demodulation resources allocated to a first uplink control channel associated with the mobile station while maintaining allocation of demodulation resources associated with a second uplink control channel that is associated with the mobile station, *wherein each of the demodulation resources allocated to a first uplink control channel and the demodulation resources associated with a second uplink control channel demodulation resource comprises a RAKE finger.* Therefore claim 46 is considered novel and non-obvious over the prior art and therefore is allowed.

Claims 47-48 depend upon allowable claim 46, therefore these claims are also considered novel and non-obvious over the prior art and therefore are also allowed.

Consider **claim 50**, the best prior art of record found during the examination of the present application, Kadaba et al. (U.S. Patent # 7,158,504), fail to specifically teach, suggest, or disclose a method for controlling communications with a mobile station by a base station comprising steps of: transmitting, by the base station, first control data to the mobile station on a

downlink control channel; upon transmitting the first control data, starting, by the base station, a timer; and when a predetermined period of time expires prior to receiving second control data from the mobile station on an uplink control channel, deallocating, by the base station, demodulation resources allocated to a first uplink control channel associated with the mobile station while maintaining allocation of demodulation resources associated with a second uplink control channel that is associated with the mobile station, *wherein each of the demodulation resources allocated to a first uplink control channel and the demodulation resources associated with a second uplink control channel demodulation resource comprises a RAKE finger.* Therefore claim 50 is considered novel and non-obvious over the prior art and therefore is allowed.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: see PTO-892 Notice of References Cited.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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